

**REMARKS**

Claims 1 through 23 were presented for examination and were rejected.

Independent claims 1, 7 and 20 have been amended to more clearly distinguish the present invention from the prior art.

Dependent claims 2-4, 6, 8, 11, and 14-19 have been amended to maintain compatibility with the amended independent claims.

The applicants respectfully request reconsideration in light of the amendments and the following comments.

**35 U.S.C. 103 Rejection of Claims 1-4**

Claims 1 through 4 were rejected under 35 U.S.C. 103(a) as being unpatentable over X. He et al., U.S. Patent Application 2004/0105412 (hereinafter "He"), in view of J. Ho, U.S. Patent Application 2003/0081547 (hereinafter "Ho"). The applicant respectfully submits that the claims, as amended, overcome the rejection.

Claim 1, as amended, recites:

**1. An apparatus comprising:**

(a) a plurality of access points, wherein each of said access points is capable of performing each of a first non-empty set of protocol services for a respective network, and wherein the correctness of each protocol service in said first set is based on a maximum timing delay; and

(b) a central controller for:

(i) receiving an input signal from each of said plurality of access points, and

(ii) transmitting to each of said plurality of access points an output signal based on the input signal from that access point and a protocol service that belongs to a second non-empty set of protocol services;

wherein said central controller is capable of performing every protocol service in said second set; and

wherein the correctness of each protocol service in said second set is independent of said maximum timing delay; and

wherein said central controller is incapable of performing any of said first set of protocol services; and

wherein each of said plurality of access points is incapable of performing any of said second set of protocol services; and

wherein the union of said first set and said second set equals the set of protocol services of a protocol stack; and

wherein said first set and said second set are disjoint.

Nowhere does He or Ho, alone or in combination, teach or suggest what claim 1 recites – namely dividing the protocol services of a protocol stack between a central controller and a plurality of access points, such that the central controller handles all protocol services whose correctness is independent of any maximum timing delay, and the access points handle all other protocol services of the protocol stack (*i.e.*, those whose correctness depends on a maximum timing delay).

He and Ho mention nothing about the correctness of protocol services with respect to maximum timing delay, or about dividing the services of a protocol stack between two types of apparatuses.

For this reason, the applicant respectfully submits that claim 1, as amended, overcomes the rejection.

Because claims 2 through 4 depend on amended claim 1, the applicant respectfully submits that the rejection of these claims is also overcome.

#### **35 U.S.C. 103 Rejection of Claims 5-19**

Claims 5 through 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over He in view of Ho, in further view of Y. Liu et al., U.S. Patent 7,209,467 (hereinafter "Liu"). The applicant respectfully submits that the claims, as amended, overcome the rejection.

The applicant respectfully submits that Liu does nothing to cure the deficiencies of He and Ho. Liu, like He and Ho, mentions nothing about characterizing a protocol service by whether or not its correctness is independent of a maximum timing delay. Moreover, Liu does not mention anything about employing two different types of apparatuses in a network – let alone dividing the protocol services of a protocol stack between the two types of apparatuses.

For these reasons, the applicant respectfully submits that claims 5 and 6 – which depend on amended claim 1 – are allowable.

Claim 7, as amended, recites:

**7. A method comprising:**

(a) performing one or more of a first non-empty set of protocol services using a first processor, wherein the correctness of each protocol service in said first set is based on a maximum timing delay, and wherein said first processor is programmed to perform each protocol service in said first set;

(b) transmitting a first signal to a second processor, wherein said second processor is programmed to perform each of a second non-empty set of protocol services, and wherein the correctness of each protocol service in said second set is independent of said maximum timing delay, and wherein said second processor is not programmed to perform any of said first set of protocol services, and wherein said first processor is not programmed to perform any of said second set of protocol services, and wherein the union of said first set and said second set equals the set of protocol services of a protocol stack, and wherein said first set and said second set are disjoint; and

(c) receiving from said second processor a second signal based on a protocol service in said second set.

Nowhere does He, Ho, or Liu, alone or in combination, teach or suggest what claim 7 recites – namely dividing the protocol services of a protocol stack between two processors, such that one of the processors handles all protocol services whose correctness is independent of any maximum timing delay, and the other processor handles all other protocol services of the protocol stack (*i.e.*, those whose correctness depends on a maximum timing delay).

For this reason, the applicant respectfully submits that claim 7, as amended, is allowable.

Because claims 8 through 19 depend on amended claim 7, the applicant respectfully submits that these claims are also allowable.

**35 U.S.C. 103 Rejection of Claim 20-23**

Claims 20 through 23 were rejected under 35 U.S.C. 103(a) as being unpatentable over He in view of Liu, in further view of P. Balogh, U.S. Patent 6,870,822 (hereinafter "Balogh"). The applicant respectfully submits that the claims, as amended, overcome the rejection.

Claim 20, as amended, recites:

**20. A method comprising:**

(a) performing a first protocol service for a first network using a first processor, wherein said first protocol service belongs to a first non-empty set of protocol services, and wherein the correctness of each protocol service in said first set is based on a maximum timing delay, and wherein said first processor is programmed to perform each protocol service in said first set;

(b) performing said first protocol service for a second network using a second processor;

(c) transmitting a first signal from said first processor to a third processor;

(d) performing a second protocol service for said first network using a third processor, wherein said second protocol service belongs to a second non-empty set of protocol services, and wherein the correctness of each protocol service in said second set is independent of said maximum timing delay, and wherein said third processor is programmed to perform each protocol service in said second set, and wherein said third processor is not programmed to perform any of said first set of protocol services, and wherein said first processor is not programmed to perform any of said second set of protocol services, and wherein the union of said first set and said second set equals the set of protocol services of a protocol stack, and wherein said first set and said second set are disjoint;

(e) transmitting a second signal from said third processor to said first processor, wherein said second signal is based on said second protocol service;

(f) transmitting a third signal from said second processor to said third processor;

(g) performing said second protocol service for said second network using said third processor; and

(h) transmitting a fourth signal from said third processor to said second processor, wherein said fourth signal is based on a protocol service in said second set.

For the same reasons as for independent claim 7, and because Balogh fails to cure the deficiencies of He, Ho, and Liu, the applicant respectfully submits that independent claim 20, as amended, is allowable.

Because claims 21 through 23 depend on amended claim 20, the applicant respectfully submits that these claims are also allowable.

**Request for Reconsideration Pursuant to 37 C.F.R. 1.111**

Having responded to each and every ground for objection and rejection in the Office action, applicants respectfully request reconsideration of the instant application pursuant to

37 CFR 1.111 and request that the Examiner allow all of the pending claims and pass the application to issue.

If there are remaining issues, the applicants respectfully request that Examiner telephone the applicants' attorney so that those issues can be resolved as quickly as possible.

Respectfully,  
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